

Current Affairs Update

National

Medical Termination of Pregnancy (MTP) Amendment Bill, 2020

Highlights

1. It seeks to extend the upper limit for permitting abortions from 20 weeks to 24 under special circumstances.
2. The “special categories of women” include rape survivors, victims of incest, the differently abled and minors.
3. The Bill proposes requirement of opinion of one registered medical practitioner (RMP) for termination of pregnancy up to 20 weeks of gestation.
4. It also provides for the requirement of opinion of two RMPs for termination of pregnancy of 20 to 24 weeks.

Need for overhaul: The present abortion law, which is about five decades old, permits abortion up to a maximum foetal gestation period of 20 weeks. In recent years, there have been strong demands to raise the foetal gestation period for abortion beyond 20 weeks.

Neptune Declaration

Recently, the Maritime body MUI urged the government to take cognisance of “Neptune Declaration on Seafarer Wellbeing and Crew Change” in order to formulate the Maritime India Vision 2030. The “Maritime India Vision 2030” will be formulated by the Ministry of Ports, Shipping and Waterways of India.

The Neptune Declaration was signed by more than 450 organizations. The declaration highlights the main actions that are required to be taken in order to resolve the crew change crisis.

This declaration has mentioned four main actions that is needful to address the crew change crisis:

1. To recognize the seafarers as the key workers and provide them priority access to Covid-19 vaccines.
2. To establish and implement the gold standard health protocols which are based on the existing best practice.



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3. To increase the collaboration between the ship operators and charterers so as to facilitate the crew changes.
4. To ensure the air connectivity between the key maritime hubs for seafarers.

Lithium deposits in Mandya district of Karnataka

Preliminary surveys on surface and limited subsurface by **Atomic Minerals Directorate for Exploration and Research (AMD)** have shown presence of Lithium resources of 1,600 tonnes in the pegmatites of Marlagalla – Allapatna area, Mandya district, Karnataka.

About Lithium: It is a soft, silvery-white metal. Under standard conditions, **it is the lightest metal and the lightest solid element.** It is highly **reactive and flammable, and must be stored in mineral oil.** It is an alkali metal and **a rare metal.**

Key Characteristics and Properties: It has the highest specific heat capacity of any solid element. Lithium's single valence electron allows it to be a good conductor of electricity. It is flammable and can even explode when exposed to air and water.

Uses:

1. Lithium is a key element for new technologies and finds its use in ceramics, glass, telecommunication and aerospace industries.
2. The well-known uses of Lithium are in Lithium ion batteries, lubricating grease, high energy additive to rocket propellants, optical modulators for mobile phones and as convertor to tritium used as a raw material for thermonuclear reactions i.e. fusion.

KRITAGYA

It is a national level hackathon being organised by the Indian Council of Agricultural Research (ICAR). It aims to promote innovation in agriculture and allied sectors in the country.

KRI-TA-GYA explains, KRI for Krishi (Agriculture), TA for Taknik (Technology) and GYA for Gyan (Knowledge).

National Voters' Day (NVD)

11th National Voters' Day (NVD) to be celebrated on 25th January 2021. Theme for this year's NVD is 'Making Our Voters Empowered, Vigilant, Safe and Informed'.

The National Voters' Day has been celebrated on January 25 every year since 2011, all across the country to mark the foundation day of Election Commission of India, i.e. 25th January 1950.

National Mission for Edible Oil

The Ministry of Agriculture has proposed for the National Mission for Edible Oil in order to increase the domestic availability and reduce the import dependency. The mission has been proposed for next five years in the span of 2020-21 to 2024-25.

The NMEO comprises of the three Sub-Missions into it with the objective of increasing the production of oilseeds and edible oils from the three sources:

1. Primary Sources- it includes the Annual Crops, Plantation Crops and Edible TBOs
2. Secondary Sources- it includes the Rice bran oil and Cotton seed oil.
3. Consumer Awareness to maintain the edible oil consumption constant at 19.00 kg per person per annum.

STARS project

STARS stands for **Strengthening Teaching-Learning and Results for States Program (STARS)**.

STARS project would be implemented as a new **Centrally Sponsored Scheme** under the Department of School Education and Literacy, Ministry of Education.

It is a project **to improve the quality and governance of school education in six Indian states.**

Six states are- Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha, and Rajasthan.

Some 250 million students (between the age of 6 and 17) in 1.5 million schools, and over 10 million teachers will benefit from the program.

Ministry of Education, Department of Economic Affairs (DEA), and World Bank have signed an agreement for the financial support worth Rs 5718 crore towards the implementation of the STARS project.

International

'New START' nuclear arms treaty

US, Russia agree to extend 'New START' nuclear arms treaty. The extension of the landmark arms control treaty will continue to limit the number of nuclear missiles and warheads each country can deploy.

The New START (Strategic Arms Reduction Treaty), was signed in 2010 by former US President Barack Obama and his Russian counterpart at the time, Dmitry Medvedev.



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The treaty limits each party to 700 deployed intercontinental ballistic missiles (ICBMs) or deployed submarine-launched ballistic missiles (SLBMs), 1,550 nuclear warheads on deployed ICBMs and SLBMs, and 800 deployed and non-deployed ICBM launchers. It also envisions a rigorous inspection regime to verify compliance.

Pakistan Gets Geographical Indicator Tag For Basmati Rice

Pakistan has received the Geographical Indicator (GI) tag for its Basmati, paving the way for creating a local registry for the particular strain of rice and making a case in the international market.

A GI is primarily an **agricultural, natural or a manufactured product** (handicrafts and industrial goods) originating from a definite geographical territory. Typically, such a name conveys an assurance of quality and distinctiveness, which is essentially attributable to the place of its origin.

Why India is concerned?

Laws require that before applying for registration of any product in the international market it has to be protected under the geographical indication laws of that country. And Pakistan is fighting a case in the 27-member European Union against India's move to get Basmati rice registered as its product.

Implications:

It is believed that a GI tag would strengthen Pakistan's case in the EU. The issue of protecting Basmati rice as a product of Pakistan came to the forefront after India submitted an application to the European Union claiming sole ownership of the commodity in September last year.

Background:

In May 2010, GI status was given to basmati grown in Punjab, Haryana, Delhi, Himachal Pradesh, Uttarakhand and parts of western Uttar Pradesh and Jammu & Kashmir.

Who accords and regulates Geographical Indications?

At the International level: Geographical Indications are covered as a component of intellectual property rights (IPRs) under **the Paris Convention for the Protection of Industrial Property**. GI is also governed by **the World Trade Organisation's (WTO's) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)**.

In India, Geographical Indications registration is administered by **the Geographical Indications of Goods (Registration and Protection) Act, 1999** which came into force with effect from September 2003. The first product in India to be accorded with GI tag was Darjeeling tea in the year 2004-05.



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Myanmar-vs-Burma:

The Myanmar military grabbed power in a recent coup – **the third time in the nation’s history since its independence from British rule in 1948**. After the last such takeover in 1988, the armed forces went on to make a decision that would remain controversial for decades: **changing the country’s name**.

How Burma became Myanmar?

When British imperialists annexed what is today’s Myanmar during the 19th century, they called it **Burma after the dominant Burman (Bamar) ethnic group**, and administered it as a province of colonial India. This arrangement continued until **1937, when Burma was separated from British India and made a separate colony**.

Even after the country became independent in 1948, it retained the same name, becoming **the ‘Union of Burma’**. In 1962, the military took over from a civilian government for the first time, and amended the official name in 1974 to **the ‘Socialist Republic of the Union of Burma’**.

Then in 1988, armed forces again took power in the country, after suppressing a popular uprising and reversed the official name to ‘Union of Burma’. But a year later, the junta adopted a law that replaced Burma with Myanmar, making the country **the ‘Union of Myanmar’**.

Rationale behind the move and its implications:

While changing the country’s name, the military said that it was looking for **a way to leave behind a name inherited from the colonial past**, and adopt a new one which could unify all of its 135 officially recognised ethnic groups, and not just the Burman people.

Science-Tech

Transporter-1 mission: New world record for most satellites on single launch

Launch site: Cape Canaveral in Florida

Launched by: SpaceX (Elon Musk's company)

Launch vehicle: Falcon-9 rocket

Satellites launched: 143 satellites in a polar sun-synchronous orbit.

Highlights:

SpaceX has set a new all-time record for the most satellites launched and deployed on a single mission, with its Transporter-1 flight.



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The launch was the first in SpaceX's new "Rideshare Program", designed to launch many satellites at a time and enable organizations to reach space at a lower cost.

The launch of 143 satellites broke the previous record for the most number of satellites on a launch, set by India in 2017 when it launched 104 on a single rocket (PSLV-C37 launch).

Controversy: With some of the satellites being as small as a shoe box, they will be hard to track in orbit, a necessity to avoid collisions with other satellites. This single launch alone will increase the number of active satellites in orbit by about five percent, given there are only about 3,000 active satellites currently orbiting Earth.

Draft 'Arctic' policy

India's Arctic Policy Roadmap For Sustainable Engagement draft rides on five pillars:

1. Science and research activities.
2. Economic and human development cooperation.
3. Transportation and connectivity.
4. Governance and international cooperation.
5. National capacity building.

Highlights of the Policy:

1. The policy commits to expanding scientific research, "sustainable tourism" and mineral oil and gas exploration in the Arctic region.
2. The draft spells out goals in India's Arctic Mission such as to better understand the scientific and climate-related linkages between the Arctic and the Indian monsoons.
3. It also seeks to harmonise polar research with the third pole (the Himalayas) and to advance the study and understanding of the Arctic within India.
4. The policy calls for exploration opportunities for responsible exploration of natural resources and minerals from the Arctic and identifying opportunities for investment in Arctic infrastructure in areas such as "offshore exploration/mining, ports, railways and airports.

India's engagement in the Arctic: India already has a research station in the Arctic, **Himadri**, for the research work. India received **the 'Observer' country status in the Arctic Council** in 2013 and is one among the 13 countries across the world, including China, to have that position. The status was renewed in 2018.



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Stardust 1.0

Stardust 1.0 was launched on Jan 31st from Loring Commerce Centre in Maine, US.

It has become **the first commercial space launch powered by biofuel**, which is non-toxic for the environment as opposed to traditionally used rocket fuels. Stardust 1.0 is a launch vehicle suited for student and budget payloads.

Green tax

The Union Minister for Road Transport and Highways has approved the following proposals:

1. To levy a "Green Tax" on old vehicles which are polluting the environment.
2. The policy of deregistration and scrapping of vehicles owned by Government department and PSU, which are above 15 years in age.
3. Revenue collected from the Green Tax to be kept in a separate account and used for tackling pollution, and for States to set up state-of-art facilities for emission monitoring.

Applicability of green tax:

1. Transport vehicles older than 8 years could be charged Green Tax at the time of renewal of fitness certificate, at the rate of 10 to 25 % of road tax;
2. Personal vehicles to be charged Green Tax at the time of renewal of Registration Certification after 15 years.
3. Public transport vehicles, such as city buses, to be charged lower Green tax.
4. Higher Green tax (50% of Road Tax) for vehicles being registered in highly polluted cities.
5. Differential tax, depending on fuel (petrol/diesel) and type of vehicle.

Exemptions: Vehicles like strong hybrids, electric vehicles and alternate fuels like CNG, ethanol, LPG etc. Vehicles used in farming, such as tractor, harvester, tiller etc.

BBV154

Bharat Biotech's BBV154 is the first publicised attempt at getting an intranasal Covid-19 vaccine.

Vaccines are most commonly administered as injectable shots into the muscles (intramuscular) or the tissue just between the skin and the muscles (subcutaneous). However, with intranasal vaccines, the solution is squirted or sprayed into the nostrils and inhaled instead of injecting it.

What are the benefits to an intranasal vaccine during a pandemic?

1. Such vaccines not only aim to overcome barriers to delivery and administration that come with producing and distributing injectable vaccines, they also may be able to tap an additional set of immune cells found in the tissues lining the nose, mouth and lungs.
2. Intranasal vaccines cut down on the need for syringes, needles and other components like alcohol swabs, as they are not injected.
3. Eliminates needle-associated injuries and infections and is easy to administer, as it also does not require trained healthcare workers.
4. It is also a single-dose, making it easier for those receiving the vaccine as well—they would not have to schedule revisits for booster shots the way they would have to with existing, injectable Covid-19 vaccines.

What are the potential setbacks?

1. Past attempts to develop intranasal vaccines, including for measles flu, have not been very successful.
2. These vaccines have mostly been made using live, weakened viruses, but have never cleared clinical trials.
3. Only a live attenuated influenza flu vaccine has been licenced through this route of delivery.

Economy

Important Schemes in the latest Union Budget



Health and well being:

1. **PM Atmanirbhar Swasth Bharat Yojana:** To be launched to develop primary, secondary and tertiary healthcare systems, strengthen existing health systems and support future health interventions with an outlay of about 64,180 crores over 6 years.
2. **Mission Poshan 2.0** to be launched to improve nutritional outcomes across 112 aspirational districts.
3. **Jal Jivan Urban Mission:** To be implemented over five years with an outlay of Rs 2.87 lakh crore.
4. **Voluntary Vehicle Scrapping Policy to phase out old vehicles and reduce vehicular pollution:** vehicles will undergo fitness tests after 20 years in private vehicles, 15 years in case of commercial vehicles.
5. **Pneumococcal vaccine rollout:** The pneumococcal vaccine, which is limited to only 5 states at present, will be rolled out across the country.
6. **Swachh Bharat Mission (Urban) 2.0** would be implemented over five years — from 2021 to 2026 — on an outlay of ₹1.41 lakh crore.

Infrastructure:

1. **Mega Investment Textile Parks-** 7 textile parks will be added in the next three years.

2. Proposal to set up **Development Finance Institution** at a cost of Rs 20,000 crore.
3. **A national monetising pipeline** will be launched and a dashboard will be created to overlook the progress.
4. The Indian Railways has prepared a **National Rail Plan for India 2030**. The plan is to create a future-ready railways system by 2030.
5. New scheme to be launched to support **augmentation of public bus service**.
6. **MetroLite and MetroNeo** to be introduced in Tier 2 cities and peripheral areas of Tier 1 cities.
7. **A framework to allow consumers of electricity alternatives** to choose from more than one distribution company.
8. **National Hydrogen Mission** for generating hydrogen from green power sources.
9. **The major ports will be moved from operating services on their own and they can enter into public-private partnership** to get private players to operate and manage it for them.
10. **Ujjwala scheme**, which has benefited 8 crore households so far, will be extended to cover 1 crore more beneficiaries.
11. **Gas pipeline network** to be taken up in J&K union territory and City Gas Distribution (CGD) programme will be extended to 100 districts in next three years.

Financial:

1. **Single securities market code:** Centre to consolidate the provisions of the Sebi Act, Depositories Act and two other laws, into a Unified Securities Market Code.
2. **Investor Charter:** Investor Charter to be introduced as a right for all investors in all financial products to enable investor protection.

Agriculture:

1. **Operation Green Scheme** to be enlarged to cover 22 perishable crops.
2. 1000 more mandis to be integrated with **E-NAM market place**.
3. **Agricultural Infrastructure funds** will be made available to APMCs for augmenting their infrastructure.
4. **Five major fishing harbours** to be developed into fishing hubs for economic activity including Chennai, Kochi, Paradip, Petuaghat and Visakhapatnam.



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5. **Seaweed farming** to be promoted -Multipurpose seaweed park to be established in Tamil Nadu.
6. **An Agriculture Infrastructure and Development Cess (AIDC)** on select items such as petrol, diesel, apples and alcohol.

Science and technology:

National Research Foundation (NRF) — an umbrella body that is expected to fund research across a range of disciplines, from science and technology to humanities. The NRF would be an autonomous body and represented by all major research and education bodies.

Defence:

Major recommendations of the 15th FC that were incorporated into the Union budget include:

1. Boost in health spending.
2. Higher borrowing limits for states.
3. A consolidation of Centrally-sponsored schemes or public programmes implemented by states but largely funded by the Union government.
4. Creation of a **non-lapsable defence and internal security fund** either through allocation from the divisible pool of funds shared by the Centre and states or through a cess.

Taxation:

1. To extend tax holiday for start-ups until March-end next year
2. To extend the capital gains exemption for investment in start-ups by another year to encourage funding in the sector.
3. To incentivise one-person companies (OPCs) by allowing them to grow without any restrictions on paid-up capital and turnout.

MSP

A total of 23 commodities are covered by the MSP. They are:

Among Cereals— Paddy, Maize, Wheat, Barley, Sorghum, Pearl millet and Ragi.

Among Pulses-Chickpea or Gram, Moong, Tur, Urad and Lentil.

Among Oilseeds— Peanut, Rapeseed, Sesame, Soyabean, Sunflower Safflower, Niger seed and

Among Commercial crops— Copra, Cotton, Sugarcane and Raw jute.

Reports & Rankings

Global Climate Risk Index 2021

The Global Climate Risk Index was recently released by Germanwatch-a NGO based in Bonn, Germany. In the index, India has been ranked at seventh position among the countries that are most effected by climate change in 2019.

Heavy rain caused the severe flooding in India that resulted into death of 1,800 across 14 states. The flood also caused the displacement of 1.8 million people. As per the report, eight tropical cyclones came in India. Six of them intensified to be very severe.

Corruption perception index (CPI)

Released by: Transparency International (Berlin based)

Scoring: Uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.

India's performance: India's rank is 86 out of 180 nations with a score of 40 (slipped six places)

Top performers: New Zealand and Denmark were ranked at first position with scores of 88.

Worst performers: Somalia and South Sudan were ranked lowest at 179th position with scores of 12.

The CPI generally defines corruption as "**the misuse of public power for private benefit**"

The CPI 2020 report noted the menace of corruption is highly pervasive in countries that least equipped to tackle COVID-19 crisis. "COVID-19 is not just a health and economic crisis. It is a corruption crisis. And one that we are currently failing to manage. The past year has tested governments like no other in memory, and those with higher levels of corruption have been less able to meet the challenge,

Democracy Index 2020

Released by: The Economist Intelligence Unit (EIU) headquartered in London, United Kingdom

Countries covered: 167

Classification: classified the economies in categories such as flawed democracies, full democracies, hybrid regimes, and authoritarian regimes

Findings: 23 countries are full democracies, 52 are flawed democracies, 35 countries are hybrid regimes while 57 countries are authoritarian regimes



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Top performers: Norway, Iceland, Sweden, New Zealand and Canada

Bottom five: North Korea, Dem. Republic of Congo, Central African Republic, Syria, Chad

India's performance: India has been ranked at 53rd place. India has been classified as a 'flawed democracy'. The other flawed democracies include U.S., France, Brazil and Belgium.

Awards

Padma Awards 2021

Padma Vibhushan is the second-highest civilian award of the Republic of India. In the year 2021, this award was given to:

1. Shri Shinzo Abe – Public Affairs – Japan
2. Shri S P Balasubramaniam (Posthumous) – Art – Tamil Nadu
3. Shri Sudarshan Sahoo – Art – Odisha
4. Belle Monappa Hegde – Medicine – Karnataka
5. Shri B. B. Lal Others – Archaeology – Delhi
6. Shri Narinder Singh Kapany (Posthumous) – Science and Engineering – United States of America
7. Maulana Wahiduddin Khan – Others – Spiritualism – Delhi

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National

Hydrogen Energy Mission

- The National Hydrogen Energy Mission **aims to reduce petroleum use, greenhouse gas emissions, and air pollution**, and contribute to more diverse and **efficient energy infrastructure**.
- It is now proposed to launch a Hydrogen Energy Mission in 2021-22 for generating **hydrogen from green power sources**.
- Green Hydrogen Mission is not only **essential to decarbonise heavy industries** like steel and cement, it also **holds the key to clean electric mobility** that doesn't depend on rare minerals.

Green Hydrogen

Being a zero-carbon fuel, hydrogen is considered to be one of the key sources of clean energy for the future. This fuel can be produced from various sources like natural gas, nuclear power, biomass, and renewable power like solar and wind. There are three types of hydrogen – grey, blue and green. The fuel produced from fossil fuels is called grey hydrogen, those produced from fossil fuels with carbon capture and storage options are called blue hydrogen, while those produced from renewable power sources are called green hydrogen.

- The Hydrogen Energy Mission is one of the biggest announcements in the union budget 2021-22, specifying the **hydrogen as green hydrogen**. MNRE has been allotted **Rs 25 crore** for research and development (R&D) in hydrogen.
 - When hydrogen is extracted from water using electrolysis powered by renewable energy, it is called green hydrogen.
- Green hydrogen energy is vital for India to meet its **Nationally Determined Contribution (INDC) Targets** and ensure regional and national energy security, access and availability.
- Currently, about **6 tonnes of hydrogen is produced** in the country which will go up by **5 times in 2050**. In October last year, Delhi became the first city in India to operate buses with hydrogen-enriched CNG (HCNG).

Why Green Hydrogen?

- Hydrogen can act as an **energy storage option**, which would be essential to meet intermittencies (of renewable energy) in the future.
- In terms of mobility, for long distance mobilisations for either urban freight movement within cities and states or for passengers, it is a very promising initiative.
 - Hydrogen can be used in railways, large ships, buses or trucks where electric-vehicles have a limitation for not having enough capacity for long distance travels.
- Hydrogen has the potential to be the key renewable target in supporting infrastructure as well.
- Hydrogen can be used:
 - As a carrier
 - As a fuel cum energy storage alternative for petrol and diesel
 - Directly as a **fuel**
- Countries across the world such as **Japan** are banking on hydrogen as a future energy media.

Challenges Associated

- In terms of challenges the **cost of renewable electricity from** hydrogen specifically, is the major problem. Public investments need to strategize and channel well.
 - Moreover, currently hydrogen is around **\$6- \$8/kg** which is a price too high to bring it into conventional use.
- The other main hurdle is **transporting hydrogen** to long distances.
 - Hydrogen in gaseous form is highly inflammable.
 - To ship liquid hydrogen, it needs to be chilled to -253°C.
- Compared to other gases (or fuels), **hydrogen lacks smell**, which makes any **leak detection almost impossible** thus increasing the potential dangers.

Glacial lake outburst flood (GLOF)

It is an **outburst that happens when a dam containing a glacial lake fails**. They involve sudden (and sometimes cyclic) releases of water. They result in large downstream river discharges (which often increase by an order of magnitude).

An avalanche and flash floods triggered in Alaknanda river in Chamoli district of Uttarakhand following a glacial breach.

Alaknanda River: It is a Himalayan river in Uttarakhand. It is one of the two headstreams of River Ganga. The other is the Bhagirathi. There are five main tributaries of Alaknanda in order namely the River Dhauliganga, River Nandakini, River Pindar, River Mandakini and River Bhagirathi. All of them rise in the northern mountainous regions of Uttarakhand.

Why does a glacier break?

1. Erosion.
2. A build-up of water pressure.
3. An avalanche of snow or rocks.
4. An earthquake under the ice.
5. Massive displacement of water in a glacial lake when a large portion of an adjacent glacier collapses into it.

CoBRA

CoBRA is a special operation unit of the Central Reserve Police Force (CRPF) of India. The operation unit is skilled in the guerrilla tactics and jungle warfare. It established in the year 2009 to counter the Naxalite problem.

It is deployed to tackle the insurgent groups who are engaged in asymmetrical warfare. Currently, there are ten battalions of CoBRA.

Recently, a maiden contingent of 34 CRPF women personnel were inducted into the specialized jungle warfare commando force called CoBRA. The induction of the first women CoBRA Unit was marked by a ceremony that was held in Kadarapur village.

International

Columbia grants temporary legal status to Venezuelans

Columbian President Iván Duque recently announced that **Venezuelans will have temporary protected status for the next ten years** in what is being called a “historic” decision.

The temporary protection statute is for those Venezuelan migrants who are fleeing dictatorship in their country. The decision covers more than 1.7 million Venezuelans who have fled to Columbia in the last few years.

Why are Venezuelans fleeing their country?



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Venezuela is engulfed in a political crisis with two rival politicians claiming to be the country's legitimate leader. Venezuela is currently under the authoritarian rule of President Maduro, who belongs to the United Socialist Party of Venezuela. After completing his first term, Maduro began his second term in January 2019, which is seen by many Venezuelans and members of the international community as illegitimate.

World Sustainable Development Summit 2021

The World sustainable development summit will be organised under the theme- 'Redefining Our Common Future: Safe and Secure Environment for All'.

It is the annual flagship event that is organised by the Energy and Resources Institute (TERI). The summit is organised in accordance with the adoption of the Sustainable Development Goals and the Paris Agreement.

UNHRC

UNHRC was reconstituted from its predecessor organisation, **the UN Commission on Human Rights** to help overcome the "credibility deficit" of the previous organisation.

Headquartered in Geneva, Switzerland.

Composition: The UNHRC has 47 members serving at any time with elections held to fill up seats every year, based on allocations to regions across the world to ensure geographical representation. Each elected member serves for a term of three years. Countries are disallowed from occupying a seat for more than two consecutive terms.

The U.S. has announced plans to reengage with the **UN Human Rights Council** that former President Donald Trump withdrew from almost three years ago.

Shahtoot dam

Signing ceremony of MoU for the construction of the Lalandar "Shatoot" Dam in Afghanistan.

The project is a part of the New Development Partnership between India and Afghanistan. The dam would come upon the Maidan river tributary of Kabul river. This is the second major dam being built by India in Afghanistan, after the India – Afghanistan Friendship Dam [Salma Dam], which was inaugurated in June 2016.

Science-Tech



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Hope mission

The Hope mission is a **Mars orbiter spacecraft**, which will study the thin atmosphere of Mars. The mission is officially named **the Emirates Mars Mission (EMM) and the orbiter has been named Hope or 'Al Amal'**. It is **the first interplanetary mission for the Arab World**.

Perseverance rover vs Tianwen-1 vs Hope spacecraft

July 2020 was a huge month for Mars. Taking advantage of its nearby position in orbit, three missions departed the Earth on a seven-month journey to the red planet. Now those spacecraft -- NASA's Perseverance rover, the Chinese space agency's Tianwen-1 and the United Arab Emirates' Hope -- are arriving at their destination.

Called Amal, or Hope in Arabic, the Gulf nation's spacecraft is seeking an especially high orbit — 13,500 by 27,000 miles high (22,000 kilometers by 44,000 kilometers) — all the better to monitor the Martian weather. It will study the Martian atmosphere, its climate, local variations in weather, loss of hydrogen and oxygen to space in a process called Jeans escape, presence and concentrations of water vapour, and differences in the various layers of the wispy Martian atmosphere.

China's duo — called Tianwen-1, or "Quest for Heavenly Truth" — will remain paired in orbit until May, when the rover separates to descend to the dusty, ruddy surface. If all goes well, it will be only the second country to land successfully on the red planet. Tianwen-1 has three objectives: orbiting the planet, landing and releasing the rover. If successful, he said in a statement "it will become the world's first Mars expedition accomplishing all three goals with one probe."

The US rover Perseverance, by contrast, will dive in straight away for a harrowing sky-crane touchdown similar to the Curiosity rover's grand Martian entrance in 2012. The odds are in NASA's favor: It's nailed eight of its nine attempted Mars landings. The NASA mission includes Perseverance, a 2,200-pound rover, and Ingenuity, an experimental Mars helicopter. The Ingenuity helicopter weighs about four pounds, and will be the first to attempt powered flight on another planet.

Despite their differences — the 1-ton Perseverance is larger and more elaborate than the Tianwen-1 rover — both will prowl for signs of ancient microscopic life.

Perseverance is aiming for an ancient river delta that seems a logical spot for once harboring life. This landing zone in Jezero Crater is so treacherous that NASA nixed it for Curiosity, but so tantalizing that scientists are keen to get hold of its rocks.

Brookesia nana

It is a recently discovered chameleon from the island country of Madagascar. It may be **the world's smallest adult reptile**. The male has a total length of 21.6 mm. The female is slightly longer at 28.9 mm. Previously, the chameleon species **Brookesia micra** was thought to be the smallest.



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World's First Energy Island

The Denmark has recently given its approval for the plan to construct the first energy field island of the world. The energy island will be constructed in the North Sea.

The energy island will be linked to hundreds of offshore wind turbines so as to supply power to the households. It will also be used to supply green hydrogen to use in heavy transport, shipping, aviation and industry.

Denmark has taken the decision to construct the energy island as a significant part of country's target to cut down the greenhouse gas emissions up to 70% by 2030 as compared to the levels in 1990. This target is the most ambitious targets of the country which is legally binding.

India's first Geothermal Power Project

The first geothermal power project of India will be established at Puga village of eastern Ladakh. This geothermal project is known as Geothermal Field Development Project. It will be commission by the end of 2022.

In the Puga Village, scientists have discovered a potential of more than 100 mw of geothermal energies. It lies in the south-eastern part of Ladakh. The village is a part of the Himalayan geothermal belt.

Srivilliputhur–Megamalai Tiger Reserve

The National Tiger Conservation Authority (NTCA) has approved the creation of the fifth tiger reserve in Tamil Nadu. Srivilliputhur Wildlife Sanctuary is also known as the Grizzled Squirrel Wildlife Sanctuary (GSWS). The sanctuary was established in the year 1988 with the objective of protecting the Near threatened grizzled giant squirrel.

National Tiger Conservation Authority (NTCA) was established in December 2005. The authority was set up on the recommendations of Tiger Task Force constituted by the Prime Minister of India with the objective of protecting the tigers. It was established under section 38 L (1) of the Wildlife (Protection) Act, 1972.

Bengaluru scientists develop a new marigold variety

Named Arka Shubha, the variety has been developed by the Hessarghatta-based Indian Institute of Horticultural Research (IIHR).

This variety of marigold has a carotene content of 2.8%, which is the highest content from a plant source. It will fetch money even if they get spoilt as it can be used for extraction of crude carotene, which is mainly used in the pharmaceutical sector.



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Carotenes are photosynthetic pigments important for photosynthesis. Carotenes contain no oxygen atoms. They absorb ultraviolet, violet, and blue light and scatter orange or red light, and (in low concentrations) yellow light.

Economy

Budget 2021 (Science-Tech)

Department of Health Research got an overall hike of 26%

Department of Atomic Energy (4.1% hike)

Department of Space (3.4%)

Ministry of Science and Technology (2.1%)

Ministry of Earth Sciences (−8.3%)

Ministry of New and Renewable Energy (no change).

Health research front: there are to be four new regional National Institutes of Virology, to add to the one in Pune; a Regional Research Platform for WHO's southeast Asia region; and nine Biosafety Level III laboratories (required when working with microbes that can cause deadly diseases if inhaled).

The budget offers Rs 50,000 crore over the next five years for the **National Research Foundation (NRF)**, Rs 4,000 crore for a **national deep ocean mission** to study ocean biodiversity, and a **national hydrogen mission** to generate hydrogen from green power sources.

The NRF has been envisaged as an umbrella body that is expected to fund research across a range of disciplines, from science and technology to humanities. It has also been tasked with seeding and building research capacity at universities and colleges.

A new initiative called **National Language Translation Mission (NTLM)** has been proposed that will digitize the wealth of governance-and-policy-related knowledge on the Internet and be made available in major Indian languages. The mission was proposed by the Ministry of Electronics and Information Technology as part of its 2019 100-day action plan. The mission aims to make science and technology content accessible to everyone by translating material in English into several Indian languages and thus increasing accessibility.

Current Affairs Update (Feb 15-21)

National

What is the doctrine of Separation of Power?

It refers to the model of governance where the executive, legislative and judicial powers are not concentrated in one body but instead divided into different branches.

It is not explicitly mentioned in the constitution.

Articles in the Constitution facilitating Separation of Powers are as follows:

1. **Article 50:** State shall take steps to separate the judiciary from the executive. This is for the purpose of ensuring the independence of the judiciary.
2. **Article 122 and 212:** Validity of proceedings in Parliament and the Legislatures cannot be called into question in any Court. Also, Legislators enjoy certain privileges with regard to speech and anything said in the Parliament cannot be used against them.
3. **Judicial conduct of a Judge of the Supreme Court and the High Court cannot be discussed in the Parliament and the State Legislature**, according to Article 121 and 211 of the Constitution.
4. **Articles 53 and 154** respectively, provide that the executive power of the Union and the State shall be vested with the President and the Governor and they enjoy immunity from civil and criminal liability.
5. **Article 361:** The President or the Governor shall not be answerable to any court for the exercise and performance of the powers and duties of his office.

Vigyan Jyoti programme

The second phase of Vigyan Jyoti programme was started on **February 11, 2021**. It was started on the occasion of **International Day of Women and Girls in Science**. It is a new initiative that seeks to encourage girls to take interest in science and build career in this field. The programme was launched by the **Department of Science & Technology (DST)** in December 2019. It was launched with the objective of creating a level-playing field for the meritorious girls who wants to pursue **STEM**. The programme is currently running successfully in 50 **Jawahar Navodaya Vidyalayas (JNV)**. In the year 2021-22 it will be expanded to 50 more JNVs. It addresses the underrepresentation of women in various areas of STEM. The programme at first cater to the girls at school level of Class IX to Class XII in order to encourage and empower them to pursue STEM courses.



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World Pulses Day

February 10 is a designated global event to recognize and emphasize the importance of pulses and legumes as a global food. The UN General Assembly adopted 2016 as the International Year of Pulses (IYP).

World Pulses Day 2021 Theme: #LovePulses.

Background:

Burkina Faso (a landlocked country in West Africa) proposed the observance of World Pulses Day. In 2019, the General Assembly announced February 10 as the World Pulses Day.

Key Points:

1. India is **the biggest producer and consumer of pulses in the world** and it has almost achieved self-sufficiency in pulses.
2. India accounted for **62% of world's total pulses production in 2019-20**.
3. In the last five-six years, India has increased pulses production from 140 lakh tonnes to more than 240 lakh tonnes.

One Nation One Ration Card scheme

Punjab becomes 13th State to complete One Nation One Ration Card system reform.

One Nation One Ration Card (RC) will ensure all beneficiaries especially migrants can access PDS across the nation from any PDS shop of their own choice.

Benefits: No poor person is deprived of getting subsidised foodgrains under the food security scheme when they shift from one place to another. It also aims to remove the chance of anyone holding more than one ration card to avail benefits from different states.

Significance: This will provide freedom to the beneficiaries as they will not be tied to any one PDS shop and reduce their dependence on shop owners and curtail instances of corruption.

Scheme format:

A standard format for ration card has been prepared after taking into account the format used by different states.

1. For national portability, the state governments have been asked to issue the ration card in bi-lingual format, wherein besides the local language, the other language could be Hindi or English.

2. The states have also been told to have a 10-digit standard ration card number, wherein first two digits will be state code and the next two digits will be running ration card numbers.
3. Besides this, a set of another two digits will be appended with ration card number to create unique member IDs for each member of the household in a ration card.

Uranium deposits found at 2 Himachal Pradesh sites

The Department of Atomic Energy (DAE) has confirmed that “small deposits” of uranium were found at Kasha Kaladi in Shimla and Tileli in Mandi district of Himachal Pradesh.

While Kasha Kaladi has an estimated 200 tonnes of triuranium octoxide, which is enough to produce 170 tonnes of uranium, Tileli has 220 tonnes of triuranium octoxide (186 tonnes of uranium). The largest deposit in the state (364 tonnes of triuranium octoxide) is at Rajpura in Una district.

The size of the find has put Himachal Pradesh at the 10th position among 11 states in the country where uranium has been traced. Andhra Pradesh, Jharkhand and Meghalaya occupy the top three positions, respectively.

Sandes

The National Informatics Centre has launched an instant messaging platform called Sandes on the lines of WhatsApp. Like WhatsApp, the new NIC platform can be used for all kinds of communications by anyone with a mobile number or email id.

The limitation, however, is that the app does not allow the user to change their email id or registered phone number.

International

ICC ruling says it has jurisdiction in Palestinian Territories

The International Criminal Court (ICC) recently ruled that **it has jurisdiction over war crimes or atrocities committed in the Palestinian territories**, paving the way for a criminal investigation over Israeli actions. Judges said their decision was based on jurisdictional rules in its founding documents and does not imply any attempt to determine statehood or legal borders.

What has the ICC said?



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It ruled that Palestine is a state party to the Rome Statute establishing the ICC. It ruled that Palestine qualifies as the state on the territory in which the “conduct in question” occurred and that the court’s jurisdiction extends to East Jerusalem, the West Bank and Gaza.

Response by Israel:

Israel is not a member of the ICC. As a non-member, it cannot appeal the recent ruling but its attorney general has argued all along that only a sovereign state can delegate authority to the ICC and that the areas in question were not a Palestinian sovereign state.

UN peacekeepers

India to gift 2 lakh vaccine doses to UN peacekeepers. The announcement was made by External Affairs Minister S. Jaishankar during his remarks at a UN Security Council open debate on the implementation of **resolution 2532 (2020)**, passed last year.

What is UNSC resolution 2532?

The resolution:

1. Demands a general and immediate cessation of hostilities in all situations on its agenda” (i.e., those already identified by the United Nations Security Council (UNSC)).
2. Calls for all parties engaged in armed conflicts (i.e., including those not specifically on the UNSC agenda) to “engage immediately in a durable humanitarian pause for at least 90 consecutive days”.
3. Specifically excludes UNSC designated terrorist groups, e.g., the Islamic State in Iraq and the Levant.

What is peacekeeping? It’s significance?

1. United Nations Peacekeeping is a **joint effort** between the Department of Peace Operations and the Department of Operational Support.
2. **Every peacekeeping mission is authorized by the Security Council.**
3. The **financial resources of UN Peacekeeping operations** are the collective responsibility of UN Member States.
4. According to the UN Charter, **every Member State is legally obligated to pay their respective share for peacekeeping.**

Composition:



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1. UN peacekeepers (often referred to as **Blue Berets or Blue Helmets** because of their light blue berets or helmets) can include soldiers, police officers, and civilian personnel.
2. Peacekeeping forces are **contributed by member states on a voluntary basis**.
3. Civilian staffs of peace operations are international civil servants, recruited and deployed by the UN Secretariat.

World Solar Bank

The International Solar Alliance (ISA) have planned to launch the World Solar Bank (WSB) at the United Nations Climate Change Conference in Glasgow that is scheduled for November 2021. The headquarter of the World Solar Bank is expected to be set up in India. It will be first multilateral development bank (MDB) that will be set up in India. The WSB have planned to disburse around \$50 billion to the member countries of ISA over next 10 years.

India Energy Outlook 2021 Report

The **International Energy Agency (IEA)** has released the **India Energy Outlook 2021 Report** which explores the opportunities and challenges ahead for India as it seeks to ensure reliable, affordable and sustainable energy for a growing population.

Third Largest Energy Consumer by 2030: India will make up the biggest share of energy demand growth at 25% over the next two decades, as it overtakes the European Union as the world's third-biggest energy consumer by 2030.

Presently, **India is the fourth-largest** global energy consumer **behind China, the United States** and the **European Union**.

The International Energy Agency is an **autonomous Intergovernmental Organisation** established in 1974 in Paris, France. India became an **Associate member of IEA in March 2017** but it was in engagement with IEA long before its association with the organization. Recently, India has **inked a Strategic Partnership Agreement with the IEA** to strengthen cooperation in global energy security, stability and sustainability.

Ngozi Okonjo-Iweala

Ngozi Okonjo-Iweala has been appointed the new chief of the World Trade Organization, becoming **the first woman to ever lead the institution and the first African citizen to take on the role**. The Director-General has little power over matters of policy – the role is primarily advisory and managerial. The Director-General supervises the WTO secretariat of about 700 staff and is **appointed by WTO members for a term of four years**.

Science-Tech & Environment

ISRO Announces 'Bhuvan'

The Department of Space (DoS), under which ISRO comes, has signed an MoU with geospatial technology company CE Info Systems Pvt Ltd to offer India's best, and fully indigenous, mapping portal and geospatial services.

The collaboration will enable them to jointly identify and build a holistic geospatial portal utilising earth observation datasets, '**NavIC**', **Web Services and APIs (application programming interface) available in MapmyIndia**. The geospatial portals will be called '**Bhuvan**', '**VEDAS**' and '**MOSDAC**'.

Bhuvan is the national geo-portal developed and hosted by ISRO comprising geospatial data, services, and tools for analysis.

VEDAS (Visualisation of Earth observation Data and Archival System) is an online geoprocessing platform that uses optical, microwave, thermal, and hyperspectral EO data covering applications particularly meant for academia, research and problem solving. Some of the Examples are Renewable Energy, Coastal & Marine Resources, Hydrology, Climate Studies.

MOSDAC (Meteorological and Oceanographic Satellite Data Archival Centre) is a data repository for all the meteorological missions of ISRO and deals with weather-related information, oceanography, and tropical water cycles. It archives and disseminates data from satellites like INSAT, KALPANA-1, Oceansat, Megha-Tropiques, and SARAL.

Geospatial data policy liberalised

The **Ministry of Science and Technology** has released new guidelines for **the Geo-spatial sector in India, which deregulates existing protocol and liberalises the sector to a more competitive field.**

Under the new guidelines:

1. The sector will be deregulated and aspects such as prior approvals for surveying, mapping and building applications based on that have been done away with.
2. For Indian entities, there will be complete deregulation with no prior approvals, security clearances and licences for the acquisition and production of geospatial data and geospatial data services, including maps.

Benefits:

1. It will help boost innovation in the sector and create a level playing field for public and private entities.

2. The easing of norms will greatly help in several sectors that were suffering because of non-availability of high-quality maps.
3. The move will unlock tremendous opportunities for the country's start-ups, private sector, public sector, and research institutions, to drive innovations and build scalable solutions.
4. It will also generate employment and accelerate economic growth.
5. India's farmers will also be benefited by leveraging the potential of geospatial and remote sensing data.
6. The deregulation eliminates the requirement of permissions as well as scrutiny, even for security concerns.

What is geo-spatial data?

1. Geospatial data is data about objects, events, or phenomena that have a location on the surface of the earth.
2. The location may be static in the short-term, like the location of a road, an earthquake event or dynamic like a moving vehicle or pedestrian, the spread of an infectious disease.
3. Geospatial data combines location information, attribute information (the characteristics of the object, event, or phenomena concerned), and often also temporal information or the time at which the location and attributes exist.

Applications:

1. Geo-spatial data usually involves information of public interest such as roads, localities, rail lines, water bodies, and public amenities.
2. The past decade has seen an increase in the use of geo-spatial data in daily life with various apps such as food delivery apps like Swiggy or Zomato, e-commerce like Amazon or even weather apps.

Ebola

A new case of Ebola was diagnosed in Democratic Republic of Congo recently. Following an outbreak in June 2020, the region was declared Ebola-free in November after no new cases were reported in more than 48 days.

Ebola virus disease (EVD), formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans.



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Transmission: The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission.

The average EVD case fatality rate is around 50%.

Prevention: Community engagement is key to successfully controlling outbreaks. Good outbreak control relies on case management, surveillance and contact tracing, a good laboratory service and social mobilisation.

Treatment: Early supportive care with rehydration, symptomatic treatment improves survival. There is yet no licensed treatment proven to neutralise the virus but a range of blood, immunological and drug therapies are under development.

Vaccines: An experimental Ebola vaccine, called rVSV-ZEBOV proved highly protective against EVD in a major trial in Guinea in 2015.

The Farakka 'lock' and hilsa

In February 2019, the government had unveiled a project to redesign the navigation lock at **the Farakka Barrage** at a cost of Rs 360 crore to create a "fish pass" for the hilsa.

Fish passes to be built at Farakka also known as fish ladders or fish ways aim to assist fish in crossing obstacles presented by dams and barrages.

Hilsa fish migration:

In scientific parlance, the hilsa (*Tenualosa ilisha*) is an anadromous fish. That is, it lives most of its life in the ocean, but during the rainy season, when it is time to spawn, the hilsa moves towards the estuary, where the rivers of India and Bangladesh meet the Bay of Bengal.

A large part of the shoal travels upstream in the Padma and the Ganga some are known to move towards the Godavari, and there are records of hilsa migration to the Cauvery.

What affected the fish movement?

Historical records also show that until the 1970s, the hilsa would swim the Ganga upstream to Allahabad and even to Agra. But the Farakka Barrage, which became operational on the Ganga in 1975, disrupted the westward movement of the hilsa. The barrage had a navigation lock that stopped the fish from swimming upstream beyond Farakka.

Giant Leatherback turtle

The largest of the seven species of sea turtles on the planet and also the most long-ranging, Leatherbacks are found in all oceans except the Arctic and the Antarctic. Within the Indian Ocean, they nest only in Indonesia, Sri Lanka and the Andaman and Nicobar Islands.

They are also listed in Schedule I of India's Wildlife Protection Act, 1972.

Brookesia Nana

Scientists believe they may have discovered the **smallest reptile on earth - a Chameleon subspecies** that is the size of a seed. **Two of the tiny lizards were discovered by a German-Madagascan expedition team in Madagascar.**

The **Male Brookesia Nana**, or **Nano-Chameleon**, has a body of just **13.5 mm**. Previously, the chameleon species **Brookesia micra** was thought to be the smallest. The average length of adults of this species is **16 mm (29 mm with tail)**, while the **smallest adult male** has been recorded at **15.3 mm**.

Chameleons (family Chamaeleonidae) are a distinctive and highly specialized **Clade of Old World Lizard** with 202 species described as of June 2015. **Madagascar is home to nearly two-thirds** of all chameleon species.

Chameleons are adapted for climbing and visual hunting. They live in warm habitats that range from **Rainforest** and **Desert** Condition. They are best known for their ability to change body colour.

Mandarin ducks

Recently, **Mandarin ducks** have been sighted in the **Maguri-Motapung beel in Assam's Tinsukia district** after a century. Mandarin duck was **first identified by Swedish** botanist, physician and zoologist **Carl Linnaeus in 1758**. **It is considered the most beautiful duck in the world. These birds inhabit temperate forests near wetlands**

Status on IUCN Red List: Least Concern.

Maguri-Motapung Beel: The Maguri Motapung wetland, an Important Bird Area as declared by the **Bombay Natural History Society** is located close to the **Dibru Saikhowa National Park** in Upper Assam.

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Economy

Draft Blue Economy Policy for India

The Ministry of Earth Sciences has asked for suggestions on the Draft Blue Economy Policy for India. The policy was drafted with the aim of enhancing the contribution of the blue economy to India's GDP.

It also seeks to improve the lives of coastal communities and preserve the marine biodiversity. It will also maintain the national security of the marine areas and resources.

The draft blue economy document has recognised the seven thematic areas such as:

1. National accounting framework of the blue economy and ocean governance;
2. Coastal marine spatial planning and tourism;
3. Marine fisheries, fish processing, and Aquaculture
4. Manufacturing, services, trade, technology, and skill development;
5. Logistics, infrastructure and shipping
6. Coastal & deep-sea mining and
7. Offshore energy & security, strategic dimensions and international engagements.

Current Affairs Update (Feb 22-28)

National

Clemency powers of the President under article 72

It says that the President shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence.

1. **Pardon**– A pardon completely absolves the offender from all sentences and punishment and disqualifications and places him in the same position as if he had never committed the offence.
2. **Commutation**– Commutation means exchange of one thing for another. In simple words to replace the punishment with less severe punishment. For example for Rigorous imprisonment- simple imprisonment.
3. **Reprieve**– Reprieve means temporary suspension of death sentence. For example- pending a proceeding for pardon or commutation.
4. **Respite**– Respite means awarding a lesser punishment on some special grounds. For example- the Pregnancy of women offender.
5. **Remissions**– Remission means the reduction of the amount of sentence without changing its character, for example, a sentence of 1 year may be remitted to 6 months.

Dhubri-Phulbari bridge

The 19-km long four-lane bridge connecting Dhubri in Assam and Phulbari in Meghalaya will be India's longest bridge once completed. Assam & Meghalaya will have a direct connection with West Bengal through this bridge.

Helina and Dhruvastra

The 'Helina' and 'Dhruvastra' are **third-generation anti-tank guided missiles**. They were successfully test-fired by India recently. Both were indigenously developed by DRDO.

Nathu La

Nathu La is a mountain pass in the Himalayas. It connects the Indian state of Sikkim with China's Tibet Autonomous Region.

It is also one of the four officially agreed BPM (Border Personnel Meeting) points between the Indian Army and People's Liberation Army of China for regular consultations and interactions between the two armies, which helps in defusing stand-offs.



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International Mother Language Day

Observed on **21 February every year**. The Day is celebrated to **promote awareness of linguistic and cultural diversity and to promote multilingualism**.

First **announced by UNESCO in 1999**, it was formally recognized by the United Nations General Assembly in 2002. The idea to celebrate International Mother Language Day was the initiative of Bangladesh.

Theme for IMLD 2021 is “Fostering multilingualism for inclusion in education and society”.

Hoshangabad City to be renamed as Narmadapuram

The Chief Minister of Madhya Pradesh, Shivraj Singh Chouhan, has announced to rename the Hoshangabad city of MP as Narmadapuram. Hoshangabad city was named after an attacker Hoshang Shah who was the first ruler of Malwa.

This district was the part of Nerbudda (Narmada) Division and Berar. It became the state of Madhya Bharat and later the Madhya Pradesh after India attained its independence in the year 1947.

Hoshangabad is famous for its beautiful ghats along the river Narmada river. The major attraction is the Sethani ghat.

The Hoshangabad will now be named as Narmadapuram named after River Narmada. River Narmada is the lifeline of Madhya Pradesh. The river is the 5th largest river across India. It flows through the rift valley. It also forms an estuary at its mouth.

Intensified Mission Indradhanush (IMI) 3.0

The mission will be conducted in two rounds. The first round will start from February 22, 2021 while the second phase will start from March 22, 2021. It will run across 250 districts or urban areas across the 29 States or Union Territories.

The IMI 3.0 initiative was launched by central government in order to provide immunization to the pregnant women and children free of cost in India. The focus of IMI 3.0 will be on children and pregnant women who missed their vaccine doses during the COVID-19 pandemic.

This Mission was launched in December 2014 with the aim of fully immunizing unvaccinated or partially vaccinated children under UIP.

The scheme targets children aged under 2 years and pregnant women for immunization.

The mission incorporated immunization programme against 12 Vaccine-Preventable Diseases (VPD) namely, Whooping cough, diphtheria, polio, tetanus, meningitis, tuberculosis, hepatitis B, pneumonia,



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Haemophilus influenzae type B infections, rotavirus vaccine, Japanese encephalitis (JE), measles-rubella (MR) and pneumococcal conjugate vaccine (PCV).

Mizoram group seeks asylum for coup-hit Myanmar villagers

Asylum, in international law, the protection granted by a state to a foreign citizen against his own state. Mizoram's apex students' body has asked the State government **to provide asylum to some villagers in Myanmar affected by the military coup there**. The State government has said that asylum would be considered if there was a formal request cleared by the Centre.

Who are seeking asylum?

People belonging to **Myanmar's Chin community** were seeking to migrate to Mizoram to escape a military crackdown, primarily because of the Chin National Army (CNA), an extremist group seeking self-determination in Chin State across the border.

The **Chin community and the Mizos in India belong to the Zo ethnic group**, which share the same ancestry.

World's largest Stadium

The President of India, Ram Nath Kovind, has inaugurated the world's largest Stadium at Motera, in Gujarat. The President of India, Ram Nath Kovind, has inaugurated the world's largest Stadium at Motera, in Gujarat. The stadium was built in over 63 acres. It has a seating capacity of 1.10 lakh people surpassing the seating capacity of 90,000 people by the Melbourne stadium.

Swachh Iconic Places

It is an initiative of Ministry of Drinking Water and Sanitation under Swachh Bharat Mission. **Ministry of Jal Shakti** announces selection of 12 sites for transforming them into 'Swachh Tourist Destinations' under Phase-IV.

The 12 sites are:

1. Ajanta Caves, Maharashtra
2. Sanchi Stupa, Madhya Pradesh
3. Kumbhalgarh Fort, Rajasthan
4. Jaisalmer Fort, Rajasthan
5. Ramdevra, Jaisalmer, Rajasthan
6. Golconda Fort, Hyderabad, Telangana

7. Sun Temple, Konark, Odisha
8. Rock Garden, Chandigarh
9. Dal Lake, Srinagar, Jammu & Kashmir
10. Banke Bihari Temple, Mathura, Uttar Pradesh
11. Agra Fort, Agra, Uttar Pradesh
12. Kalighat Temple, West Bengal

International

The Solar Gigawatt club

Nations with installed capacity to produce 1 GW of solar power form the ‘gigawatt club’, an unofficial tag. Of the 37 countries that are part of the solar ‘gigawatt club’, only two — South Africa and Egypt — are from Africa. But this might change soon with nine more African countries ramping up solar capacity, said the first annual African Solar Energy Outlook 2021 report released by the Africa Solar Industry Association (AFSIA).

The nine countries that are developing their solar infrastructure are Algeria, Zimbabwe, Zambia, Democratic Republic of Congo, Angola, Namibia, Ethiopia, Morocco and Botswana.

The solar boom is driven by the new and more flexible technologies brought to market along with drastic cost reductions of both solar panels and storage solutions

Japan protests after two Chinese coast guard ships enter islands in East China Sea

After two Chinese coast guard ships entered waters off **the Senkaku islands recently**, Japan protested against China’s intrusion in the uninhabited islets in **the East China Sea**. Tensions have escalated between the two countries after **Beijing enacted a legislation allowing its coast guard to use weapons against foreign ships that it views illegally entered its waters**.

What’s the issue?

Japan and China are locked in a dispute over the islands in the East China Sea which Tokyo calls **the Senkakus** and Beijing **the Diaoyu**. The islets are administered by Japan, however, Beijing claims the islands as its own.

What China says?



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1. China's (and Taiwan's) position is that **the Diaoyus have been part of Chinese territory since at least 1534.**
2. China argues that Japan seized the features by force during the first Sino-Japanese War that ended with the imposition on China of the unequal Treaty of Shimonoseki.
3. It asserts that **the Potsdam Declaration** that Japan accepted as part of **the San Francisco Peace Treaty** ending World War II required Tokyo to relinquish control of Taiwan, and that these features are part of Taiwan, which is part of China.

But the US took control of them and in 1971 transferred their administration to Japan under **the Okinawa Reversion Agreement.**

Ghana first country to receive COVAX vaccines

Ghana became the first country to receive vaccines under **COVAX – an initiative to reduce vaccine disparity between high- and low-income countries** – with 600,000 doses of the AstraZeneca-Oxford vaccine arriving in the capital Accra.

COVAX: COVAX is a partnership between the World Health Organization (WHO) and two international groups – the Gavi vaccine alliance and the Coalition for Epidemic Preparedness Innovations (CEPI) – which aims to send vaccines to developing countries.

Science-Tech & Environment

Extinction Rebellion

Also referred to as 'XR'. Initially, launched in the United Kingdom on October 31, 2018, as a response to a report by the United Nations Intergovernmental Panel on Climate Change (IPCC). Now, it is a global movement which seeks to "rebel", and asks groups to "self-organise", without the need for anyone's permission, to come up with collective action plans as long as they adhere to the group's core principles and values.

It is a decentralised, international and politically non-partisan movement using non-violent direct action and civil disobedience to persuade governments to act justly on the Climate and Ecological Emergency.

The group has **"three core demands" of governments around the world.** It wants governments to "Tell the Truth", to "Act Now", and to "Go Beyond Politics" in order to confront the climate and ecological emergency that the world is faced with.



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Hyderabad wins global 'Tree City' status

Hyderabad has won a green contest among cities in India, and emerged one of the **'Tree Cities of the World'**. That title has been bestowed by **the Arbor Day Foundation and the Food and Agriculture Organization (FAO)**.

The city was evaluated on five metrics: 'Establish Responsibility', 'Set the Rules', 'Know What You Have', 'Allocate the Resources', and 'Celebrate the Achievements'.

Hyderabad has been selected for its commitment to growing and maintaining urban forestry. With the recognition, the city joins 120 others from 23 countries, including the U.S., the U.K., Canada, and Australia

Carbon Watch

Chandigarh became the first state or Union Territory in India to launch Carbon Watch.

What is Carbon Watch?

It is a mobile application to assess the carbon footprint of an individual.

What is Carbon Footprint?

Carbon footprint is the amount of greenhouse gases-especially carbon dioxide-released into the atmosphere by a particular human activity.

How does the app Carbon Watch work?

1. As a person downloads the application, they will need to fill details in four parts- Water, Energy, Waste Generation and Transport (Vehicular movement). In each category, they will be required to inform about their respective consumptions and waste generations.
2. With the mentioned information, the mobile application will automatically calculate the carbon footprint of the individual.
3. The application will also provide information such as the national and world average of the emission, and the individual's level of emission generation.

Solutions:

The mobile application will suggest methods to reduce the carbon footprints. The application will suggest ways as per the information furnished by the individuals.

Black-footed ferret

Scientists have successfully cloned an endangered **black-footed ferret using frozen cells** from along-dead wild animal, the first time any native endangered species has been cloned in the United States.

The species is North America's only native ferret. The species was considered extinct until seven were found in 1981.

Acute encephalitis syndrome

Acute encephalitis syndrome is a **basket term used for referring to hospitals, children with clinical neurological manifestation that includes mental confusion, disorientation, convulsion, delirium, or coma.**

Meningitis caused by virus or bacteria, encephalitis (mostly Japanese encephalitis) caused by virus, encephalopathy, cerebral malaria, and scrub typhus caused by bacteria are **collectively called acute encephalitis syndrome.**

The disease most commonly affects children and young adults and can lead to considerable morbidity and mortality.

Symptoms:

It is characterized as acute-onset of fever and a change in mental status (mental confusion, disorientation, delirium, or coma) and/or new-onset of seizures in a person of any age at any time of the year.

Cause of the disease:

Acute Encephalitis Syndrome (AES) is considered a very complex disease as it **can be caused by various agents including bacteria, fungi, virus and many other agents.** Japanese encephalitis virus (JEV) is the major cause of AES in India (ranging from 5%-35%). Nipah virus, Zika virus are also found as causative agents for AES.

How is it related to litchi fruits? How it affects?

In India, AES outbreaks in north and eastern India have been linked to children eating **unripe litchi fruit on empty stomachs.**

Unripe fruit contain the toxins hypoglycin A and methylenecyclopropylglycine (MCPG), which cause vomiting if ingested in large quantities. Hypoglycin A is a naturally occurring amino acid found in the unripened litchi that causes severe vomiting (Jamaican vomiting sickness), while MCPG is a poisonous compound found in litchi seeds.



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Bangladesh bans all known Vulture-Toxic Drugs

Bangladesh has become the first country that has banned the painkiller ketoprofen. This painkiller is used widely to treat the cattle. But this painkiller is toxic to vultures. Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) such as diclofenac and ketoprofen are a major threat to vultures of South Asia. These drugs led to the catastrophic 99.9 per cent declines of white-rumped vultures in this region.

Odisha Elephant Deaths

In the month of January-February six elephants died at the Karlapat Wildlife Sanctuary in Kalahandi. Following that, a central team was set up by the Ministry of Environment, Forests and Climate Change. The team in its preliminary report highlighted that, the elephants died because of haemorrhagic septicaemia which is caused by bacteria *Pastuerella multoceda*.